Amendment   Docket No. PHNL010143
Serial No. 10/078,952

IN THE CLAIMS:

Kindly replace the claims of record with the following full set of claims:

1. (Currently amended)   A transmission system for transmitting a multicarrier signal from a transmitter to a receiver, the multicarrier signal comprising a plurality of subcarriers, the receiver comprising:

a channel estimator for estimating amplitudes of the subcarriers and for estimating time derivatives of the amplitudes:

, the receiver further comprising an equalizer for canceling intercarrier interference included in the received multicarrier signal in dependence on the estimated amplitudes and derivatives, wherein the receiver comprises comprising a multiplication by N x N leakage matrix, and wherein the multiplication is implemented as a sequence of an N-point IFFT, N pointwise multiplications and an N-point FFT.

2. (Previously presented) The transmission system according to claim 1, wherein the receiver is a decision feedback receiver and wherein the channel estimator comprises a smoothing filter for smoothing the estimated amplitudes and/or derivatives.

3. (Previously presented) The transmission system according to claim 1, wherein the FFT is further arranged for demodulating the received multicarrier signal.

4. (Previously presented) The transmission system according to claim 1, wherein the multicarrier signal is an OFDM signal.

5. (Previously presented) The transmission system according to claim 1, wherein the multicarrier signal is a MC-CDMA signal.

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6. (Currently amended) A receiver ~~(20)~~ for receiving a multicarrier signal from a transmitter, the multicarrier signal comprising a plurality of subcarriers, the receiver comprising:

a channel estimator for estimating amplitudes of the subcarriers and for estimating time derivatives of the amplitudes, ~~the receiver further comprising~~ and

an equalizer for canceling intercarrier interference included in the received multicarrier signal in dependence on the estimated amplitudes and derivatives, ~~wherein the receiver comprises~~ comprising a multiplication by $N \times N$ leakage matrix-, and wherein the multiplication is implemented as a sequence of an N-point IFFT, N pointwise multiplications and an N-point FFT.

7. (Previously presented) The receiver according to claim 6, wherein the receiver is a decision feedback receiver and wherein the channel estimator comprises a smoothing filter for smoothing the estimated amplitudes and/or derivatives.

8. (Previously presented) The receiver ~~(20)~~ according to claim 6, wherein the FFT is further arranged for demodulating the received multicarrier signal.

9. (Previously presented) The receiver according to claim 6, wherein the multicarrier signal is an OFDM signal.

10. (Previously presented) The receiver according to claim 6, wherein the multicarrier signal is a MC-CDMA signal

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